AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Please amend the claims as follows:

(currently amended) A computer system adapted to play audio files,
 said computer system comprising:

a system CPU;

a memory coupled to said system CPU; and

at least one drive <u>coupled to said system CPU and having stored thereon</u>
<u>an audio file</u> comprising compressed audio data coupled to said system CPU,
<u>said compressed audio data residing in an audio file</u>; <u>and</u>

circuitry coupled between said drive and a digital-to-analog converter, said circuitry also coupled to user-actuated function keys;

wherein a play list software program selects and stores a play list comprising said audio file;

wherein a first operating system is adapted to control at least said system CPU and said memory and is executed when said computer system is operating in a first mode, said first operating system adapted to decompress said compressed audio data if said computer system is operated by said first operating system; and

wherein a second operating system is stored in BIOS and executed instead of said first operating system when said computer system is operating in a second mode, said second operating system adapted to decompress said compressed audio data if said computer system is operated by said second

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 4 - Group Art Unit: 2615 operating system, retrieve said play list and cause said drive to read said audio file from said play list, to cause said system CPU to decompress the compressed audio data of said audio file and provide decompressed audio data, and to cause said decompressed audio data to be stored in said memory, wherein said wherein decompressed audio data is transferred to said digital-to-analog converter from said system CPU to an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred to said digital-to-analog converter from said system CPU to an output amplifier through a second transfer path through said circuitry if said computer system is operated by said second operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry but on said second transfer path play of said decompressed audio data is subject to said function keys.

2. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a system CPU;

a memory coupled to said system CPU; and

at least one drive comprising compressed audio data coupled to said system CPU and having compressed audio data stored thereon; and

circuitry coupled between said drive and a digital-to-analog converter, said circuitry also coupled to user-actuated function keys;

wherein a first operating system is adapted to control at least said system

CPU and said memory and is executed when said computer system is operating

in a first mode, said first operating system adapted to decompress said

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 5 - Group Art Unit: 2615 compressed audio data if said computer system is operated by said first operating system; and

wherein a second operating system is stored in BIOS and executed instead of said first operating system when said computer system is operating in a second mode, said second operating system adapted to decompress said compressed audio data if said computer system is operated by said second operating system, cause said system CPU to decompress said compressed audio data and store said decompressed audio data in said memory, wherein said wherein decompressed audio data is transferred to said digital-to-analog converter from said system CPU to an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred to said digital-to-analog converter from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said second operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry but on said second transfer path play of said decompressed audio data is subject to said function keys.

3. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a system CPU;

a memory coupled to said system CPU; and

at least one drive comprising compressed audio data coupled to said system CPU and having stored thereon compressed audio data; and

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 6 - Group Art Unit: 2615 circuitry coupled between said drive and a digital-to-analog converter, said circuitry also coupled to user-actuated function keys;

wherein a mini-operating system runs instead of a first operating system controlling said computer system, wherein said mini-operating system operates only to play said audio files, and wherein said mini-operating system stored in BIOS, said mini-operating system being adapted to cause said system CPU to decompress said compressed audio data and store decompressed audio data in said memory, and wherein said wherein decompressed audio data is transferred to said digital-to-analog converter from said-system CPU to an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said mini-operating system, wherein play of said decompressed audio data is subject to said function keys on said second transfer path but not on said first transfer path.

4. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a memory that stores compressed audio data; and

a system CPU coupled to said memory; and

circuitry coupled between said memory and an output amplifier, said circuitry also coupled to user-actuated function keys;

wherein a mini-operating system runs instead of a first operating system controlling said computer system, wherein said mini-operating system operates only to play said audio files, and wherein said mini-operating system stored in

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 7 - Group Art Unit: 2615 BIOS, said mini-operating system being adapted to cause said system CPU to decompress said compressed audio data to provide decompressed audio data, and wherein said wherein decompressed audio data is transferred from said system CPU to an to said output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said mini-operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry but on said second transfer path play of said decompressed audio data is subject to said function keys.

5. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a memory that stores compressed audio data;

a system CPU coupled to said memory;

circuitry coupled between said memory and a codec, said circuitry also coupled to user-actuated function keys; and

an audio controller;

wherein a mini-operating system runs instead of a first operating system controlling said computer system, wherein said mini-operating system operates only to play said audio files, and wherein said mini-operating system stored in BIOS, said mini-operating system controlling said audio controller and said system CPU, so as to cause said system CPU to decompress said compressed audio data to provide decompressed audio data, and wherein said wherein decompressed audio data is transferred to said codec from said system CPU to

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 8 - Group Art Unit: 2615 an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred to said codec from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said mini-operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry but on said second transfer path play of said decompressed audio data is subject to said function keys.

6. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a memory that stores compressed audio data;

a system CPU coupled to said memory; and

an audio controller coupled to said memory; and

circuitry coupled between said memory and a codec, said circuitry also coupled to user-actuated function keys;

wherein a first operating system is adapted to control at least said system CPU; and

wherein a second operating system is stored in BIOS, said second operating system controlling said audio controller and said system CPU, so as to cause said system CPU to decompress said compressed audio data to provide decompressed audio data, wherein said wherein decompressed audio data is transferred to said codec from said system CPU to an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred to said codec from said system CPU to said output amplifier through

Docket No.: O2MICRO 00.17 (O2-0020) Examiner: Flanders, A. - 9 - Serial No.: 09/921,171 Group Art Unit: 2615 a second transfer path through said circuitry if said computer system is operated by said second operating system, wherein play of said decompressed audio data is subject to said function keys on said second transfer path but not on said first transfer path.

7. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a system CPU;

a memory coupled to said system CPU; and

at least one drive coupled to said system CPU and having stored thereon
an audio file; an audio file; and

circuitry coupled between said drive and a codec, said circuitry also coupled to user-actuated function keys;

wherein a first operating system is adapted to control at least said system CPU and decompress said compressed audio data, when said computer system is operating in a first mode and said memory;

wherein a play list software program is executable under said first operating system, said play list software program being adapted to permit selection and storage of a play list comprising said audio file; and

wherein a second operating system is executed instead of said first operating system when said computer system is operating in a second mode, said second operating system stored in BIOS and adapted to retrieve said play list and cause said drive to read said audio file from said play list, to cause said system CPU to decompress said the compressed audio data when said computer system is operating in said second mode, of said file and provide

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 10 - Group Art Unit: 2615 decompressed audio data, and to cause said decompressed audio data to be stored in said memory, wherein said wherein decompressed audio data is transferred to said codec from said system CPU to an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred to said codec from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said second operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry but on said second transfer path play of said decompressed audio data is subject to said function keys.

- 8. (canceled).
- 9. (canceled).
- 10. (currently amended) A computer system adapted to play audio files, said computer system comprising:
 - a system CPU; and

a drive coupled to said system CPU and <u>having stored thereon</u> comprising at least one compressed audio file; <u>and</u>

circuitry coupled between said drive and a codec, said circuitry also coupled to user-actuated function keys;

wherein a mini-operating system runs instead of a first operating system controlling said computer system, wherein said mini-operating system operates only to play said audio files, and wherein said mini-operating system is stored in

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 11 - Group Art Unit: 2615 BIOS, said mini-operating system controlling said system CPU [[,]] so as to cause said system CPU to decompress said at least one audio file to provide at least one decompressed audio file, and wherein said decompressed audio file is transferred to said codec from said system CPU to an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio file is transferred to said codec from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said mini-operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry but on said second transfer path play of said decompressed audio data is subject to said function keys.

11. (currently amended) A method of playing audio files on a computer system, said method comprising:

booting a first operating system;

creating and storing a play list comprising a list of compressed audio files residing on at least one drive of a computer system having said at least one drive, a CPU, and a memory;

terminating said first operating system;

booting a second operating system upon activation by a switch, wherein said second operating system runs running instead of said first operating system to operate only to play said-compressed audio files, and wherein said-second operating system stored in BIOS, said second operating system being adapted to cause said system CPU to decompress said compressed audio files and store compressed audio data in said memory;

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 12 - Group Art Unit: 2615 reading said play list;

reading said compressed audio files from said drive based on said play list;

providing said compressed audio files to said CPU for decompressing the data of said compressed audio file into decompressed audio data;

storing said decompressed audio data in said memory;

transferring said decompressed audio data from said-CPU to an output amplifier through a first transfer path through circuitry coupled between said memory and said output amplifier if said computer system is operated by said first operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry; and

transferring said decompressed audio data from said CPU to said output amplifier through a second transfer path through said circuitry that differs from said first transfer path if said computer system is operated by said second operating system, wherein on said second transfer path play of said decompressed audio data is subject to function keys coupled to said circuitry. [[;]] and

retrieving said decompressed audio data from said memory for playing.

12. (currently amended) A method of playing audio files on a computer system, said method comprising:

booting a first operating system;

creating and storing a play list comprising a list of compressed audio files residing on one or more drives of a computer system having at least a drive, a CPU, and a memory;

terminating said first operating system;

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 13 - Group Art Unit: 2615 booting a second operating system, wherein said second operating system runs running instead of said first operating system to operate only to play said compressed audio files, and wherein said second operating system is stored in BIOS, said second operating system being adapted to cause said system CPU to decompress said compressed audio files data to be decompressed and store said compressed audio data in said memory;

reading said play list;

reading said compressed audio files from said drive based on said play list;

providing said compressed audio data to said CPU for decompressing said compressed audio the data of said compressed audio file into decompressed audio data;

storing said decompressed audio data in said memory;

transferring said decompressed audio data to a codec from said CPU to an output amplifier through a first transfer path through circuitry coupled between said memory and said codec if said computer system is operated by said first operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry; and

transferring said decompressed audio data to said codec from said CPU to said output amplifier through a second transfer path through said circuitry that differs from said first transfer path if said computer system is operated by said second operating system, wherein on said second transfer path play of said decompressed audio data is subject to user-actuated function keys coupled to said circuitry. ; and

retrieving said decompressed audio data from said memory for playing.

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a system CPU;

a memory coupled to said system CPU;

at least one drive coupled to said system CPU and comprising compressed audio data;

circuitry coupled between said drive and a digital-to-analog converter, said circuitry also coupled to user-actuated function keys;

wherein a first operating system is adapted to control at least said system CPU and said memory;

wherein a second operating system is adapted to cause said system CPU to decompress said compressed audio data and store decompressed audio data in said memory, wherein said decompressed audio data is transferred to said digital-to-analog converter from said system CPU to an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred to said digital-to-analog converter from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said second operating system;

a first switch coupled to said system CPU, the activation of said first switch causing said first operating system to boot; and

a second switch coupled to said system CPU, the activation of said second switch causing said second operating system to boot.

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a system CPU;

a memory coupled to said system CPU;

wherein a first operating system is adapted to control at least said system CPU and said memory;

at least one drive coupled to said system CPU and comprising compressed audio data;

circuitry coupled between said drive and an output amplifier, said circuitry also coupled to user-actuated function keys;

wherein a second operating system runs independently of said first operating system, said second operating system being adapted to cause said system CPU to decompress said compressed audio data and store decompressed audio data in said memory, wherein said decompressed audio data is transferred from said system CPU to said an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said second operating system, wherein play of said decompressed audio data is subject to said function keys on said second transfer path but not on said first transfer path; and

a switch coupled to said system CPU, the activation of said switch causing said second operating system to boot.

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a memory that stores compressed audio data;

a system CPU coupled to said memory;

circuitry coupled between said memory and a codec, said circuitry also coupled to user-actuated function keys;

wherein a first operating system is adapted to control at least said system CPU:

wherein a second operating system operates independently of said first operating system, said second operating system being adapted to cause said system CPU to decompress said compressed audio data to provide decompressed audio data, wherein said decompressed audio data is transferred from said system CPU to an output amplifier to said codec through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred from said system CPU to said output amplifier to said codec through a second transfer path through said circuitry if said computer system is operated by said second operating system, wherein on said first transfer path said decompressed audio data is not modified by said circuitry but on said second transfer path play of said decompressed audio data is subject to said function keys; and

a switch coupled to said memory, the activation of said switch causing said second operating system to boot and cause said system CPU to decompress said compressed audio data.

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a memory that stores compressed audio data;

a system CPU coupled to said memory;

an audio controller coupled to said memory;

circuitry coupled between said memory and an output amplifier, said circuitry also coupled to user-actuated function keys;

wherein a first operating system is adapted to control at least said system CPU:

wherein a second operating system operates independently of said first operating system, said second operating system controlling said audio controller and said system CPU, so as to cause said system CPU to decompress said compressed audio data to provide decompressed audio data, wherein said decompressed audio data is transferred to said from said system CPU to an output amplifier through a first transfer path through said circuitry if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred from said system CPU to said output amplifier through a second transfer path through said circuitry if said computer system is operated by said second operating system, wherein play of said decompressed audio data is controlled in response to actuation of any one of said function keys when said decompressed audio data is transferred on said second transfer path but not on said first transfer path; and

a switch coupled to said memory, the activation of said switch causing said second operating system to boot.

17. (canceled).

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19. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a system CPU;

a drive coupled to said system CPU and <u>having stored thereon a</u> comprising at least one compressed audio file; and

a circuit coupled between said drive and an output amplifier, said circuit also coupled to user-actuated function keys;

wherein a mini-operating system runs instead of a first operating system controlling said computer system, wherein said mini-operating system only operates to play said audio files, said mini-operating system being stored in BIOS and adapted to control said system CPU [[,]] so as to cause said system CPU to decompress said at least one audio file of said audio files to provide a at least one decompressed audio file, wherein said decompressed audio file is transferred from said system CPU to said an output amplifier through a first transfer path through said circuit if said computer system is operated by said first operating system, and wherein said decompressed audio file is transferred from said system CPU to said output amplifier through a second transfer path through said circuit if said computer system is operated by said mini-operating system, wherein play of said decompressed audio data is controlled in response to actuation of any one of said function keys when said decompressed audio data is transferred on said second transfer path but not on said first transfer path; and

a switch coupled to said system CPU, the activation of said switch causing said operating system to boot.

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a system CPU capable of running under a first operating system; a memory coupled to said system CPU;

at least one <u>a</u> drive coupled to said system CPU and comprising <u>having</u> stored thereon <u>a</u> compressed audio data; and

an audio controller coupled to said system CPU, memory and drive; and

a circuit coupled between said drive and a codec, said circuit also coupled
to user-actuated function keys;

said audio controller capable of running under a second operating system distinct from said first operating system, being adapted to cause said drive to read said compressed audio data, to cause said system CPU to decompress said compressed audio data, thereby providing decompressed audio data, and to cause said decompressed audio data to be stored in said memory, wherein said decompressed audio data is transferred from said system CPU to an output amplifier to said coded through a first transfer path through said circuit if said system CPU runs under said first operating system, and wherein said decompressed audio data is transferred from said system CPU to said codec output amplifier through a second transfer path through said circuit if said audio controller runs under said second operating system, wherein play of said decompressed audio data is controlled in response to actuation of any one of said function keys when said decompressed audio data is transferred on said second transfer path but not on said first transfer path.

21. (currently amended) <u>The</u> [[A]] computer system as claimed in claim 20, wherein said audio controller is further adapted to place said system CPU in

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 20 - Group Art Unit: 2615 standby state when said system CPU is not decompressing said compressed audio data.

22. (currently amended) The [[A]] computer system as claimed in claim

20, wherein said audio controller is further adapted to cause said decompressed

audio data to be retrieved from said memory for playing.

23. (currently amended) The [[A]] computer system as claimed in claim

20, wherein said drive is selected from the group consisting of: a hard disk, a

removable disk, a floppy disk, a magnetic storage medium, an optical storage

medium, and an IDE device.

24. (currently amended) The [[A]] computer system as claimed in claim

20, wherein said compressed audio data is in a format selected from the group

consisting of: MP3, WMA, AAC.

25. (currently amended) The [[A]] computer system as claimed in claim

20, further comprising at least one digital computer bus, wherein said audio

controller is coupled to at least one of said system CPU, memory, and drive via

said digital computer bus.

26. (canceled).

27. (currently amended) The [[A]] computer system as claimed in claim

20, further comprising an LCD interface for generating signals to an LCD display

for displaying song name, file/directory name and/or timing data.

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29. (currently amended) The [[A]] computer system as claimed in claim 20

28, wherein a software driver receives interrupts generated by at least one of

said plurality of function keys and passes for passing said interrupts to said

system CPU.

30. (currently amended) The [[A]] computer system as claimed in claim

29, wherein said CPU utilizes said interrupts to control a standard audio player

software.

31. (currently amended) The [[A]] computer system as claimed in claim

20, wherein said audio controller is adapted not to cause said drive to read said

compressed audio data, nor to cause said system CPU to decompress said

compressed audio data, nor to cause said decompressed audio data to be

stored in said memory, unless said computer system is off, in hibernate mode, in

suspend to HDD mode, or in one of power states S4 or S5.

32. (currently amended) The [[A]] computer system as claimed in claim

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20, wherein said audio controller is adapted not to cause said drive to read said

compressed audio data, nor to cause said system CPU to decompress said

compressed audio data, nor to cause said decompressed audio data to be

stored in said memory, when said computer system is on, in sleep mode, in

suspend to RAM mode, or in one of power states S0 or S3.

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33. (currently amended) The [[A]] computer system as claimed in claim 29, wherein said software driver is adapted not to receive said interrupts generated by at least one of said plurality of function keys nor pass said interrupts to said system CPU, unless said computer system is on, in sleep mode, in suspend to RAM mode, or in one of power states S0 or S3.

34. (currently amended) <u>The</u> [[A]] computer system as claimed in claim 20, wherein said compressed audio data is stored in one or more audio files on said drive, said computer system further comprising a play list software program for creating and storing a play list comprising one or more said audio files.

35. (currently amended) <u>The [[A]]</u> computer system as claimed in claim 34, wherein said play list software program is executable only when said computer is on or in power state S0.

36. (currently amended) <u>The</u> [[A]] computer system as claimed in claim 35, wherein said audio controller is further adapted to cause said drive to read said compressed audio data based, at least in part, on said stored play list.

37. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a system CPU capable of running under a first operating system;

a memory coupled to said system CPU;

at least one drive coupled to said system CPU and comprising having compressed audio data stored thereon, said compressed audio data residing in one or more audio files;

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 23 - Group Art Unit: 2615 a circuit coupled between said drive and an output amplifier, said circuit also coupled to user-actuated function keys;

wherein a play list software program selects a play list comprising one or more of said audio files; and

an audio controller coupled to said system CPU, memory and drive; said audio controller capable of running under a second operating system distinct from said first operating system, being adapted to cause said drive to read at least one said audio file of said play list, to cause said system CPU to decompress the compressed audio data of said file and thereby provide decompressed audio data, and to cause said decompressed audio data to be stored in said memory, wherein said decompressed audio data is transferred to said from said system CPU to an output amplifier through a first transfer path through said circuit if said system CPU runs under said first operating system, and wherein said decompressed audio data is transferred from said system CPU to said output amplifier through a second transfer path through said circuit if said audio controller runs under said second operating system, wherein said function keys generate commands that are used to control play of said decompressed audio data when said decompressed audio data is transferred on said second path but not when said decompressed audio data is transferred on said first path.

38. (currently amended) A method of playing audio files on a computer system, said method comprising:

reading compressed audio data from <u>a</u> the drive of a computer system <u>further comprising having at least a drive</u>, a CPU, BIOS and a memory;

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 24 - Group Art Unit: 2615 providing said compressed audio data to said CPU for decompressing said compressed audio data, thereby providing decompressed audio data; and storing said decompressed audio data in said memory for playback using a mini-operating system operating independently of a first operating system

controlling said computer system; and

transferring said decompressed audio data from said CPU to an output amplifier through a first transfer path through a circuit coupled between said drive and said output amplifier if said computer system is operated by said first operating system; and

transferring said decompressed audio data from said CPU to said output amplifier through a second transfer path through said circuit if said computer system is operated by said mini-operating system, wherein said second transfer path that differs from said first transfer path if said computer system is operated by said mini-operating system, wherein said mini-operating system stored in said BIOS of said computer system is operable only to play said compressed audio data, wherein on said first transfer path said decompressed audio data is not modified by said circuit but on said second transfer path play of said decompressed audio data is subject to user-actuated function keys that are coupled to said circuit.

39. (currently amended) The [[A]] method of playing audio files on a computer system as claimed in claim 38, further comprising placing said system CPU in a standby state when said system CPU is not decompressing said compressed audio data.

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 25 - Group Art Unit: 2615 40. (currently amended) <u>The</u> [[A]] method of playing audio files on a computer system as claimed in claim 38, further comprising retrieving said decompressed audio data from said memory for playing.

41. (currently amended) <u>The</u> [[A]] method of playing audio files on a computer system as claimed in claim 38, wherein said drive is selected from the group consisting of: a hard disk, a removable disk, a floppy disk, a magnetic storage medium, an optical storage medium, a flash media, and an IDE device.

42. (currently amended) The [[A]] method of playing audio files on a computer system as claimed in claim 38, wherein said compressed audio data is in a format selected from the group consisting of: MP3, WMA, and AAC.

43. (currently amended) <u>The [[A]]</u> method of playing audio files on a computer system as claimed in claim 38, further comprising generating signals to an LCD display for displaying song name, file/directory name and/or timing data.

44. (currently amended) The [[A]] method of playing audio files on a computer system as claimed in claim 38, further comprising wherein said computer system further comprises a plurality of function keys, and wherein said method further comprises receiving user commands generated by at least one of said plurality of function keys and utilizing said user commands to control said playing.

45. (currently amended) <u>The</u> [[A]] method of playing audio files on a computer system as claimed in claim 38, further comprising receiving interrupts

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46. (currently amended) The [[A]] method of playing audio files on a computer system as claimed in claim 45 38, wherein said computer system further comprises standard audio player software, and wherein said method further comprise utilizing said interrupts to control said standard audio player software.

47. (currently amended) The [[A]] method of playing audio files on a computer system as claimed in claim 38, wherein said steps of reading compressed audio data from the drive of said computer system, providing said compressed audio data to said CPU, and storing said decompressed audio data in said memory, are not performed unless said computer system is off, in hibernate mode, in suspend to HDD mode, or in one of power states S4 or S5.

48. (canceled).

49. (currently amended) The [[A]] method of playing audio files on a computer system as claimed in claim 45, wherein said steps of receiving interrupts generated by at least one of said plurality of function keys and passing said interrupts to said system CPU are not performed unless said computer system is on, in sleep mode, in suspend to RAM mode, or in one of power states \$0 or \$3.

50. (canceled).

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- 51. (canceled).
- 52. (canceled).
- 53. (currently amended) A method of playing audio files on a computer system, said method comprising:

creating and storing a play list comprising a list of compressed audio files residing on one or more drives of a computer system <u>further comprising having</u> at least a drive, a CPU [[,]] and a memory;

reading said play list;

reading said compressed audio files from said drive based on said play list;

providing said compressed audio data to said CPU for decompressing the data of said compressed audio file into decompressed audio data;

storing said decompressed audio data in said memory for playback using a mini-operating system operating independently of a first operating system controlling said computer system;

transferring said decompressed audio data from said CPU to an output amplifier through a first transfer path through a circuit coupled between said drive and said output amplifier if said computer system is operated by said first operating system, wherein said circuit is coupled to a plurality of user-actuated function keys; and

transferring said decompressed audio data from said CPU to said output amplifier through a second transfer path through said circuit that differs from said first transfer path if said computer system is operated by said mini-operating system, wherein said second transfer path differs from said first transfer path and

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 28 - Group Art Unit: 2615 wherein said mini-operating system is operable only to play said compressed audio data, wherein on said first transfer path said decompressed audio data is not modified by said circuit but on said second transfer path play of said decompressed audio data is subject to user commands generated using said function keys; and

using said mini-operating system for retrieving said decompressed audio data from said memory for playing.

54. (canceled).

55. (currently amended) A method of playing audio files on a computer system, said method comprising:

when said computer system is on, in sleep mode, in suspend to RAM mode, or in one of power states S0 or S3, creating and storing a play list comprising a list of compressed audio files residing on one or more drives of a computer system further comprising having at least a drive, a CPU [[,]] and a memory, wherein said list of compressed audio files is stored for playback using a mini-operating system operating independently of a first operating system controlling said computer system, wherein said mini-operating system is operable only to play said compressed audio data when said computer system is off:

when said computer system is off, in hibernate mode, in suspend to HDD mode, or in one of power states S4 or S5, reading said play list;

when said computer system is off, in hibernate mode, in suspend to HDD mode, or in one of power states S4 or S5, reading said compressed audio files from said drive based on said play list;

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 29 - Group Art Unit: 2615 when said computer system is off, in hibernate mode, in suspend to HDD mode, or in one of power states S4 or S5, providing said compressed audio data to said CPU for decompressing the data of said compressed audio file into decompressed audio data;

when said computer system is off, in hibernate mode, in suspend to HDD mode, or in one of power states S4 or S5, storing said decompressed audio data in said memory, wherein said decompressed audio data is transferred from said system CPU to an output amplifier through a first transfer path through a circuit coupled between said system CPU and said output amplifier if said computer system is operated by said first operating system, and wherein said decompressed audio data is transferred from said system CPU to said output amplifier through a second transfer path through said circuit if said computer system is operated by said mini-operating system, wherein said circuit is coupled to a plurality of user-actuated function keys and wherein, on said second transfer path but not on said first transfer path, play of said decompressed audio data is subject to user commands generated using said function keys; and

when said computer system is off, in hibernate mode, in suspend to HDD mode, or in one of power states S4 or S5, retrieving said decompressed audio data from said memory for playing.

56. (currently amended) A method of playing audio files on a computer system, said method comprising:

reading compressed audio data from the drive of a computer system, said computer system <u>further comprising</u> having at least a drive, a CPU [[,]] and a memory;

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 30 - Group Art Unit: 2615 providing said compressed audio data to said CPU for decompressing said compressed audio data into decompressed audio data;

storing said decompressed audio data in said memory for playback using a mini-operating system operating independently of a first operating system controlling said computer system;

transferring said decompressed audio data from said CPU to an output amplifier through a first transfer path through a circuit coupled between said system CPU and said output amplifier if said computer system is operated by said first operating system; and

transferring said decompressed audio data from said CPU to said output amplifier through a second transfer path through said circuit that differs from said first transfer path if said computer system is operated by said mini-operating system, wherein said mini-operating system is operable only to play said compressed audio data, wherein said circuit is coupled to a plurality of user-actuated function keys and wherein, on said second transfer path but not on said first transfer path, play of said decompressed audio data is subject to user commands generated using said function keys; and

using said mini-operating system for playing said decompressed audio data from said memory.

57. (canceled).

58. (currently amended) A computer system adapted to play audio files, said computer system comprising:

a memory <u>having stored therein an audio file</u> comprising compressed audio data <u>residing in an audio file</u>;

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 31 - Group Art Unit: 2615 at least one function key coupled to <u>a circuit that is coupled between</u> said memory <u>and an output amplifier</u>, <u>said function key</u> and configured to enable a user to select said audio file <u>and control play of said audio file</u>;

a system CPU coupled to said memory;

an audio controller coupled to said memory; and

wherein a mini-operating system that only operates to play said audio files runs instead of a first operating system controlling said computer system that only operates to play said audio files, wherein said mini-operating system comprises comprising file management software, said file management software configured to manage said audio file files and to permit said user to access said audio file files via said at least one function key, said operating system also configured to control said audio controller and said CPU to cause said CPU to decompress said at least one audio file selected by said user to provide a decompressed audio file, wherein said decompressed audio file is transferred from said system CPU to said an output amplifier through a first transfer path through said circuit if said system CPU runs under said first operating system, and wherein said decompressed audio file is transferred from said system CPU to said output amplifier through a second transfer path through said circuit if said audio controller runs under said mini-operating system, and wherein, on said second transfer path but not on said first transfer path, play of said decompressed audio data is subject to user commands generated using said function key.

59. (original) The computer system of claim 58, further comprising an LCD display configured to display a file/directory name for said audio files.

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a system CPU;

a memory coupled to said system CPU;

at least one drive coupled to said system CPU and <u>having stored thereon</u> an audio file comprising compressed audio data <u>residing in an audio file</u>;

at least one function key coupled to <u>a circuit coupled between</u> said drive and <u>an output amplifier</u>, said function key configured to enable a user to select said audio file and control play of said audio file; and

wherein a mini-operating system that only operates to play said audio files runs instead of a first operating system controlling said computer system that only operates to play said audio files, wherein said mini-operating system comprising files management software, said file management software configured to manage said audio file files and permit said user to access said audio file files via said at least one function key, said operating system also configured to control said CPU to cause said CPU to decompress said at least ene audio file files selected by said user to provide a decompressed audio file. wherein said decompressed audio file is transferred from said system CPU to an output amplifier through a first transfer path through said circuit if said computer system is operated by said first operating system, and wherein said decompressed audio file is transferred from said system CPU to said output amplifier through a second transfer path through said circuit if said computer system is operated said mini-operating system, and wherein, on said second transfer path but not on said first transfer path, play of said decompressed audio data is subject to user commands generated using said function key.

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 33 - Group Art Unit: 2615 61. (original) The computer system of claim 60, further comprising an LCD display configured to display a file/directory name for said compressed audio data.

62. (withdrawn) A computer system adapted to play audio files, said computer system comprising:

a system CPU;

memory;

at least one storage medium comprising compressed audio data, said compressed audio data residing in one or more audio files;

at least one function key configured to enable a user to select at least one of said audio files; and

a play list software program for selecting and storing a play list comprising one or more of said audio files;

a first operating system configured to control at least said system CPU and said memory; and

a second operating system comprising file management software, said file management software configured to manage said audio files and to permit said user to access said audio files via said at least one function key, said operating system also configured to retrieve said play list and cause said drive to read at least one said audio file of said play list, to cause said system CPU to decompress said at least one audio file selected by said use and provide decompressed audio data, and to cause said decompressed audio data to be stored in said memory.

Docket No.: O2MICRO 00.17 (O2-0020) Serial No.: 09/921,171 Examiner: Flanders, A. - 34 - Group Art Unit: 2615 63. (withdrawn) The computer system of claim 62, further comprising an

LCD display configured to display at least a file/directory name for said audio

files.

64. (withdrawn) A method of playing audio files on a computer system,

said method comprising the steps of:

selecting compressed audio data from a drive of a computer system

having at least said drive, a CPU, and a memory, wherein said selecting step is

performed by activation of at least one function key;

reading said compressed audio data;

providing said compressed audio data to said CPU for decompressing

said compressed audio data, thereby providing decompressed audio data; and

storing said decompressed audio data in said memory.

65. (withdrawn) The method of claim 64, further comprising displaying at

least a file/directory name for said compressed audio data.

66. (withdrawn) The method of claim 65, wherein said file/directory name

is displayed on an LCD screen.

67. (withdrawn) The method of claim 64, wherein said drive is a hard disk,

removable disk, floppy disk, magnetic storage medium, optical storage medium,

flash media, or IDE device.

68. (withdrawn) The method of claim 64, wherein said compressed audio

data is in MP3, WMA, AAC, or other secured compressed audio format.

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69. (withdrawn) The method of claim 64, wherein said compressed audio data resides in one or more audio files and said selecting step selects at least one of said audio files.

70. (canceled).

71. (new) The computer system of Claim 1 wherein said circuitry is coupled between a South Bridge and said digital-to-analog converter.

72. (new) The computer system of Claim 71 wherein said circuitry is coupled to said South Bridge via a first AC_link and to said digital-to-analog converter via a second AC_link.

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